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- 50. The method of claim 48, wherein the DNA molecule is formed by synthesizing a DNA molecule encoding the amino acid sequence of the variant, which has an altered amino acid sequence of one or more epitopes of the reference protein.
- 51. The method of claim 48, wherein the reference protein is an industrial enzyme.
- 52. The method of claim 51, wherein the enzyme is a detergent enzyme.
- 53. The method of claim \$2, wherein the detergent enzyme is an amylase, cellulase, lipase, oxidase, or protease.
- 54. The method of claim 48, wherein the reference protein is a process enzyme.
- 55. The method of claim 54, wherein the process enzyme is an amylase, cellulase, lipase, or lyase.
- 56. The method of claim 48, wherein the reference protein is a medicinal protein.
- 57. The method of claim 56, wherein the medicinal protein is a hormone or medicinal enzyme.
- 58. A method for producing a host cell that is capable of producing a variant of a reference protein having a known amino acid sequence, comprising
- (a) mapping one or more epitopes of the reference protein with immunological and proteochemical techniques;
- (b) forming a DNA molecule encoding the amino acid sequence of the variant, which has an altered amino acid sequence of one or more epitopes of the reference protein, wherein the variant evokes a lower immunogenic response in an animal than the reference protein;
- (c) inserting the DNA molecule encoding the variant into a vector suitable for introduction into a cell; and
 - (d) introducing the vector into the cell to form the host cell.
- 59. A method for producing a variant of a reference protein having a known amino acid sequence, comprising



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- (a) mapping one or more epitopes of the reference protein with immunological and proteochemical techniques;
- (b) forming a DNA molecule encoding the amino acid sequence of the variant, which has an altered amino acid sequence of one or more epitopes of the reference protein, wherein the variant evokes a lowerimmunogenic response in an animal than the reference protein;
- (c) inserting the DNA molecule encoding the variant into a vector suitable for introduction into a cell;
 - (d) inserting the vector into the cell to form the host cell;
 - (e) cultivating the host cell under conditions suitable for expressing the variant; and
 - (f) recovering the variant.
- 60. The method of claim 59, wherein the reference protein is an industrial enzyme.
- 61. The method of claim 60, wherein the enzyme is a detergent enzyme.
- 62. The method of claim 61, wherein the detergent enzyme is an amylase, cellulase, lipase, oxidase, or protease.
- 63. The method of claim 59, wherein the reference protein is a process enzyme.
- 64. The method of claim 63, wherein the process enzyme is an amylase, cellulase, lipase, or lyase.
- 65. The method of claim 59, wherein the reference protein is a medicinal protein.
- 66. The method of claim 65, wherein the medicinal protein is a hormone or medicinal enzyme.